

Claims

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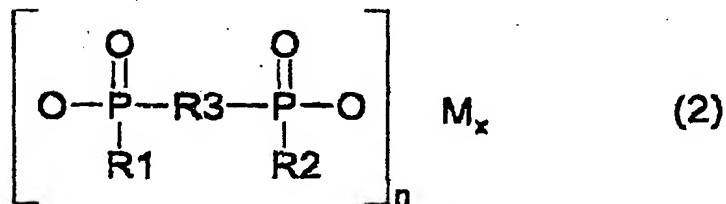
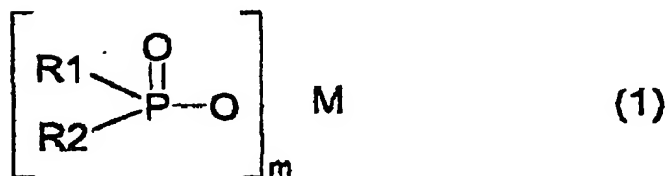
1. Flameproof polyamide moulding compositions, comprising

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a) 30 - 80% by weight of a semi-aromatic, partially crystalline polyamide

b) 1 - 30% by weight of a flame retardant, containing a phosphinic acid salt of formula (I) and/or a diphosphinic acid salt of formula (II) and/or polymers thereof

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wherein

R^1 , R^2 are the same or different and mean C1-C6 alkyl, linear or branched and/or aryl,

5 R^3 means C1-C10 alkylene, linear or branched, C6-C10 arylene, -alkyl arylene or aryl alkylene;

10 M means metal ion from the 2nd or 3rd main or auxiliary group of the periodic table;

m means 2 or 3;

15 n means 1 or 3;

x means 1 or 2,

20 c) 5 - 60% by weight of a fibre- or particle-like filler or mixtures thereof

d) 0.05 - 10% by weight additives

25 the sum a) to d) yield 100% by weight.

2. Flameproof polyamide moulding compositions according to claim 1, characterised in that the semi-aromatic polyamide has a melting point of at least 280°C, preferably of at least 295°C.

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3. Flameproof polyamide moulding compositions according to claim 1 and 2, characterised in that

the semi-aromatic polyamide a) is selected from the group formed by polyamides, the repeating units of which are derived from terephthalic acid, possibly from a further aromatic dicarboxylic acid and/or from one or more aliphatic or cycloaliphatic dicarboxylic acids and also from aliphatic and/or cycloaliphatic diamines and also possibly from aliphatic amino acids

4. Flameproof polyamide moulding composition according to claim 3, characterised in that the semi-aromatic polyamide a) is selected from the group formed by polyamides, the repeating units of which are derived from terephthalic acid, adipic acid and possibly isophthalic acid and also from hexamethylene diamine.

5. Polyamide moulding composition according to one of the preceding claims, characterised in that the polyamide is formed from terephthalic acid (TPS) and isophthalic acid (IPS) and hexamethylene diamine.

6. Polyamide moulding composition according to claim 5, characterised in that the polyamide contains TPS and IPS in a ratio of approx. 70 : 30.

7. Polyamide moulding composition according to one of the preceding claims 1 to 4, characterised in that the polyamide is formed from terephthalic acid (TPS) and adipic acid and hexamethylene diamine.

8. Polyamide moulding composition according to claim 7, characterised in that the polyamide contains TPS and adipic acid in a ratio of approx. 55 : 45.

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9. Flameproof polyamide moulding composition according to one of the preceding claims, characterised in that there is used as flame retardant b) a phosphinic acid salt of formula (I) and/or a diphosphinic acid salt of formula (II) and/or polymers thereof, wherein M stands for calcium or aluminum ions.

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10. Flameproof polyamide moulding composition according to one of the preceding claims, characterised in that the phosphinic acid salt used as flame retardant is contained in a quantity of 1 - 30% by weight, preferably 5 - 25% by weight, particularly preferred 8 - 20% by weight, relative to the total formulation.

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11. Polyamide moulding composition according to one of the preceding claims, characterised in that the additive is selected from stabilizers, processing aids, anti-dripping agents, dyes and/or pigments.

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12. Use of the flameproof moulding composition according to one of the claims 1 - 11 for producing moulded articles.

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13. Use of the flameproof moulding compositions according to claim 12 for producing moulded articles which fulfill the requirement according to the UL 94-flammability classification V0 found with test pieces with a thickness of 0,4 mm.